KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR
TECHNICAL DATA

BCW31/32

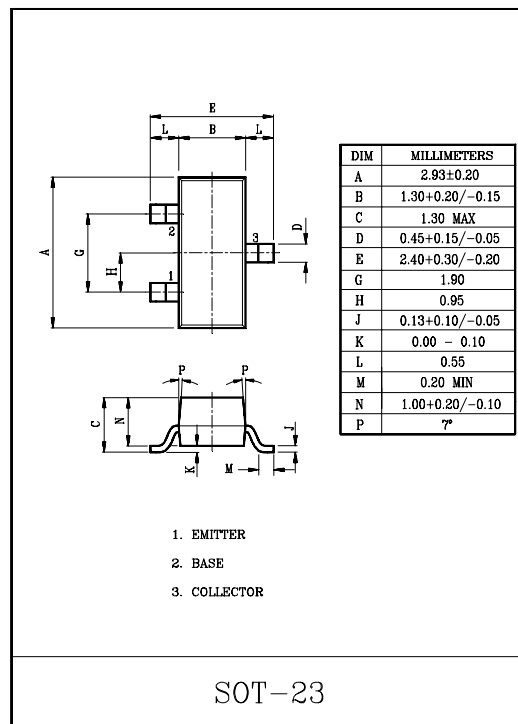
EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 - 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7°

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C *	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

P_C*:Package Mounted On 99.5% Alumina 10×8×0.6mm.

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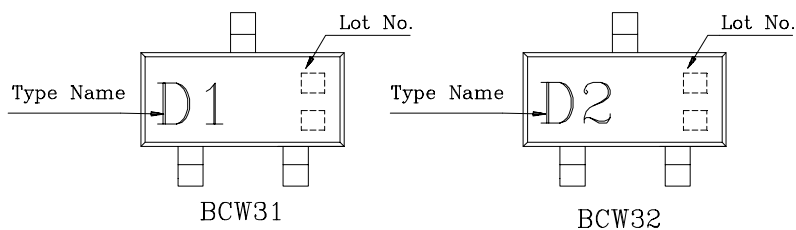
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage		V_{CBO}	I_C=10μA	30	-	-	V
Collector-Emitter Breakdown Voltage		V_{CEO}	I_C=2mA	20	-	-	V
Emitter-Base Breakdown Voltage		V_{EBO}	I_E=10μA	5	-	-	V
Collector Cut-off Current		I_{CBO}	V_{CB}=30V	-	-	100	nA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5V	-	-	100	nA
DC Current Gain	BCW31	h_{FE}	V_{CE}=5V, I_C=2mA	110	-	220	
	BCW32			200	-	450	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=10mA, I_B=0.5mA	-	-	0.25	V
Base-Emitter On Voltage		$V_{BE(ON)}$	V_{CE}=5V, I_C=2mA	0.55	-	0.7	V
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	-	4	pF
Noise Figure		NF	V_{CE}=5V, I_C=0.2mA R_S=2kΩ, f=1kHz	-	-	10	dB